

Migrated 20+ consumer-facing portals from on-premise data center to AWS Cloud for Girnarsoft

Summary

Girnarsoft engaged TO THE NEW to prepare and execute a migration plan for 20+ consumer portals running on 250+ servers in an on-premise data center. TTN was responsible for preparing a migration strategy, designing cloud-native architecture, and migrating each application with minimal downtime.

The migration was carried out in two phases, starting with 'lift and shift' approach and later adoption 'AWS native services' in the second phase.

The Client

Founded in 2007, GirnarSoft is the parent company of various leading consumer portals including CarDekho, BikeDekho, PriceDekho, CollegeDekho, Gaadi, ZigWheels, UsedGaadi, OTO, etc. They provide rich automotive content like expert reviews, details specs and price comparisons, an array of tech-enabled tools to OEMs and dealers, e-commerce platforms for buying/selling old cars, related automotive accessories, and insurance.

Business Pain & Challenges

GirnarSoft was facing the following issues while running all their portals in the on-premise data center:

- Continuous scaling needs along with traffic spikes during peak season and marketing campaigns was a huge challenge as well as resulting in higher costs
- The old setup had a few limitations in terms of security and audit readiness. At the same time, there was no easy mechanism to enforce standard best practices across all platforms
- Disaster recovery was very costly and there was no easy way to run mock drills
- Traditional setup and application stack did not support new-age solutions like serverless implementations

Industry: Automotive, Internet Businesses

Highlights

- ✓ Migrated 20+ consumer portals to AWS in less than 90 days
- ✓ Leveraged Spot instances for non-production workloads and handling traffic spikes on production
- ✓ Standardised deployment & monitoring across all applications



Business Solution

TO THE NEW worked along with GirnarSoft to move its entire data center to Amazon Web Services (AWS) cloud to ensure scalability in the infrastructure, application updates, and security patches in cloud. TO THE NEW ensured that the proposed solution addresses all business needs & challenges.

Solution Overview

- Created a well-architected infrastructure as per the AWS best practices
- Implemented Auto Scaling for all the applications
- Applications scale in different availability zones for high availability
- Majority of the Auto Scaling groups run a combination of Spot and On-Demand Instances to help take care of any untimely request spikes in the applications and reduce the overall cost
- Leveraged AWS spot instances to run all non-production workloads as well as handle traffic spikes at minimal cost in the production environment
- Turn off all un-required servers during non-business hours
- Customer-controlled encryption in transit with Transport Layer Security (TLS) across all services
- Enforced security practices using Identity and Access Management (IAM) groups, roles, and users along with Multi-Factor Authentication (MFA)
- Deployed applications across multiple availability zones for high availability along with continuous backup and replication of critical data on S3 & Glacier
- Used Chef as a configuration management tool to manage application configuration and all the application setup in the form of cookbook
- Used Jenkins as Continuous Integration Continuous Deployment (CI/CD) tool for a faster deployment process and frequency
- Lightweight Directory Access Protocol (LDAP) implementation and integration with the servers to have separate users for all users who log into the Instances
- Robust monitoring to provide the deepest details of application and infrastructure
- Centralized logging and monitoring in place using Elasticsearch, Logstash, and Kibana (ELK stack) and Grafana/Telegraf

Business Outcomes/Results

TO THE NEW helped GirnarSoft migrate from the data center to AWS cloud. The migration has the following benefits for the business -

- Migration of 20+ applications running on 250+ servers to AWS with zero-downtime for the application components and minimal downtime for databases
- An automated mechanism to scale in real-time as per application needs
- Standard best practices & security guidelines enforced across all applications
- Streamlined CI/CD process and configuration management process
- Moved to latest versions of OS, technologies, and tools, and Implemented mechanism for regular patching and upgrades
- Huge performance improvements with reduced Total Cost of Ownership (TCO)
- Blue-Green Deployment approach to ensure zero downtime

Technology Stack

Backend



Frontend



Database



Cache



DevOps



Amazon Web Services (AWS)



Other Frameworks



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